

## PATENT COOPERATION TREATY


## PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

REC'D 22 FEB 2005

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Applicant's or agent's file reference 21240WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/NL 03/00770	International filing date (day/month/year) 04.11.2003	Priority date (day/month/year) 06.11.2002
International Patent Classification (IPC) or both national classification and IPC G02B1/11		
Applicant DSM IP ASSETS B.V.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand  15.04.2004	Date of completion of this report  16.02.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840	Authorized Officer  Hylla, W  Telephone No. +49 30 25901-612	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NL 03/00770**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-25 as originally filed

**Claims, Numbers**

1-20 as originally filed

**Drawings, Sheets**

1/9-9/9 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
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International application No. PCT/NL 03/00770

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 7-12,19

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 7-12,19

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the Standard.

☐ the computer readable form has not been furnished or does not comply with the Standard.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-5,13-18
	No: Claims	1,2,6,20
Inventive step (IS)	Yes: Claims	17
	No: Claims	3-5,13-16,18
Industrial applicability (IA)	Yes: Claims	1-6,13-18,20
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

- D1: EP-A-1 146 093 (NISSAN CHEMICAL (JP)) 17 October 2001  
D2: US 2002/018886 A1 (MATSUFUJI AKIHIRO ET AL) 14 February 2002  
D3: IBN-ELHAJ M ET AL: "Optical polymer thin films with isotropic and anisotropic nano-corrugated surface topologies" NATURE, vol. 410, 12 April 2001, pages 796-799  
D4: WO 01/29148 A (SCHADT MARTIN ;ROLIC AG (CH); IBN ELHAJ MOHAMMED (CH); SCHMITT KLA) 26 April 2001  
D5: WALHEIM S ET AL: "Nanophase-separated polymer films as high-performance antireflection coatings" SCIENCE, vol. 283, no. 5401, 22 January 1999, pages 520-522

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 6 and 20 is not new in the sense of Article 33(2) PCT.
  - 1.1 The document D1 discloses (see par. [0001] and [0006]):  
A single layer anti-reflective hard-coat (Claim 1).  
It is evident that any such layer will have a "structured surface" (Claim 2), especially as the layer of D1 is comprising colloidal particles of 0.5µm or less (which would result in a "nano-structured surface").  
Example 1 of D1 also discloses that the amount of inorganic nano-particles (see par.[0050]) is in the range between 5 to 75 weight % {see par.[0055]} (Claim 6).  
  
It is implicit that D1 discloses a "shaped article" comprising the previously defined hard-coat layer. A substrate coated with such a layer would e.g. be regarded as such a "shaped article" (Claim 20).
  - 1.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 3-5 does not involve an inventive step in the sense of Article 33(3) PCT.

The subject-matter of claims 3, 4 and 5 differs from the disclosure of D1 only in the definition of ranges of parameters which ranges are well known to the skilled person to result in desirable and advantageous properties of the claimed device.

On one hand there is a lack-of-clarity objection under Art.6 PCT resulting from such "desiderata" features, on the other hand such features cannot be regarded as based on an inventive step (Art.33(3) PCT).

1.3 For completeness it is mentioned that similar novelty and inventive step objections as made above can be based on document D2.

2. The method according to claim 13 cannot be regarded as involving an inventive step (Art.33(3) PCT) in view of the disclosure of D3 ( see p.796, left col.,last par. - right col., par.2) or D4 (p.6, l.19 - p.7, l.19). The only difference of the process according to claim 13 is the addition of nano-particles into the mixture to be applied to the substrate. However, this would be obvious for the skilled person in view of the teachings of D1 or D2, both making use of nano-particles in similar coatings.

2.1 The additional features of dependent method claims 14-16 and 18 appear all to result from the application of skills of the ordinary practitioner rather than involving an inventive step. Therefore, these claims do not meet the requirements of Art.33(3) PCT either.

2.2 An invention could be seen in the process of claim 17, clarified according to the description, p.9, lines 17-23.